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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/636,308	08/11/2000	Timothy A. Okel	1527A2	7905
24959	7590	04/15/2004	EXAMINER	
PPG INDUSTRIES INC INTELLECTUAL PROPERTY DEPT ONE PPG PLACE PITTSBURGH, PA 15272			TSOY, ELENA	
			ART UNIT	PAPER NUMBER
			1762	

DATE MAILED: 04/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/636,308	Applicant(s) OKEL ET AL.	
	Examiner Elena Tsoy	Art Unit 1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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Response to Amendment

Amendment filed on March 8, 2004 has been entered. Claims 1-18 are pending in the application.

Claim Objections

1. Objection to claim 2 because of the informalities has been withdrawn due to amendment.

Terminal Disclaimer

2. The terminal disclaimer supposedly filed on March 8, 2004 (See Remarks, page 7, paragraph 2) disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US 6,384,125 to Bergstrom et al has not been received and recorded.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1-3, 5-16, 18 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No. 6,384,125 to

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Bergstrom et al in view of Burns et al (US 5,708,069) for the reasons of record as set forth in Paragraph No. 4 of the Office Action mailed on January 2, 2004.

5. Claims 4, 17 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 8 of U.S. Patent No. 6,384,125 to Bergstrom et al in view of Burns et al (US 5,708,069), and further in view of Cruse et al (WO 99/09036) for the reasons of record as set forth in Paragraph No. 5 of the Office Action mailed on January 2, 2004.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-3, 5-8, 10, 12, 14-16, 18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Burns et al (US 5,708,069) for the reasons of record as set forth in Paragraph No. 7 of the Office Action mailed on January 2, 2004.

8. Claims 1-3, 5-16, 18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Burns et al (US 6,051,672) in view of Burns et al (US 5,708,069) for the reasons of record as set forth in Paragraph No. 8 of the Office Action mailed on January 2, 2004.

9. Claims 4, 17 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Burns et al (US 5,708,069)/Burns et al (US 6,051,672) in view of Burns et al (US 5,708,069), and further in view of Cruse et al (WO 99/09036) for the reasons of record as set forth in Paragraph No. 9 of the Office Action mailed on January 2, 2004.

Response to Arguments

10. Applicants' arguments filed March 8, 2004 have been fully considered but they are not persuasive.

(A) Applicants argue that Burns et al '069 do not teach or suggest claimed specific combination of mercaptoorganometallic compound and non-sulfur organometallic compound.

The Examiner respectfully disagrees with this argument. Burns et al '069 teach in example 6 that a mixture of the organosilicon compounds includes a **mixture of sulfur-**containing organometallic compound, e.g. bis{3-(triethoxysilyl)propyl}tetrasulfide, **and non-sulfur** organometallic compound of claimed formula $R^1_a-SiX_{4-a}$, e.g. dimethyldichlorosilane within claimed ratio (See column 10, lines 48-53). Further, according to Burns et al '069, mercaptomethyltrimethoxysilane is functionally equivalent to bis{3-(triethoxysilyl)propyl}tetrasulfide for their use as hydrophobing compounds.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used mercaptomethyltrimethoxysilane instead of bis{3-(triethoxysilyl)propyl}tetrasulfide in a process of Burns et al '069 since Burns et al '069 teach that mercaptomethyltrimethoxysilane and bis{3-(triethoxysilyl)propyl}tetrasulfide are functionally equivalent for hydrophobing silica, and the selection of any of these known material as hydrophobing agent in Burns et al '069 would be within the level of ordinary skill in the art.

(B) In response to applicant's argument that the examiner's conclusion of obviousness over Burns et al '069 is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of

ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

(C) Applicants argue that Burns et al '069 do not disclose increasing the pH following the hydrophobing reaction.

The Examiner respectfully disagrees with this argument. Burns et al '069 teach that their invention is directed to method of preparation of hydrophobic silica gel under **neutral** conditions (See column 3, lines 1-2, 26-27) while reaction of silica with hydrophobing agent is **preferably** carried out at **pH less than 2.5** (See column 5, lines 47-51). Therefore, the **neutral** conditions are created following the reaction of silica with the hydrophobing agent. Also, Burns et al '069 teach that pH of silica hydrosol may be elevated by adding a base (See column 4, lines 21-25).

Although, Burns et al '069 do not expressly show that upon the completion of reaction a neutralizing base is added to elevate pH of less than 2.5 to neutral pH, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used added a base upon completion of hydrophobing reaction carried at pH of less than 2.5 in Burns et al '069 with the expectation of providing the desired neutral pH.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is (571) 272-1429. The examiner can normally be reached on Mo-Thur. 9:00-7:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Elena Tsoy
Examiner
Art Unit 1762

April 12, 2004